

operates with a current of less than one ampere. Support for this amendment can be derived from, for example, page 6, lines 17-19, of the specification. In addition, a typographical error has been corrected in claim 1. Thus, no new matter has been added by this amendment. A clean copy of the claims after amendment can be found in the attached Appendix.

***Claim Rejections - 35 USC § 103***

On pages 2-3, in numbered paragraph 2, of the Official Action, the Examiner maintains the rejection of claims 1-14 under 35 USC 103(a) as being unpatentable over Kalley et al. (U.S. Patent 5,959,306)/Kalley (U.S. Patent 5,674,000) in view of German Patent Application DE 199 38 480 A1, Della Ciana et al. (U.S. Patent 6,136,612) and Pinkus et al. (U.S. Patent 5,608,213). On page 2, last three lines, of the Official Action, the Examiner specifically states:

Applicant secondly argues an inherent capacity of solid state diodes, which is lower power consumption. However, it should be pointed out the lower power consumption is not even mentioned in the claims.

In response, Applicant has amended claim 1 to specifically recite that the lamp operates with a current of less than one ampere. It is respectfully submitted that none of the cited references discloses a detection lamp

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that operates with a current of less than one ampere. U.S. Patent 5,959,306 (Kalley et al.) discloses a lamp that operates with a current of 4.4 amperes (20 watts, 4.5 volts - column 6, lines 59-63). U.S. Patent 5,674,000 (Kalley) discloses a lamp that operates with a current of 4.2 amperes (50 watts, 12 volts - column 5, lines 35-37). It follows that any combination of the teachings of the cited references would not result in a detection lamp operating with a current of less than one ampere.

Furthermore, a detection lamp operating with a current of less than one ampere will have lower power consumption, will use smaller batteries, will have longer lasting batteries and will produce less heat than a detection lamp operating with a current of more than one ampere.

In view of the amendment to claim 1 and the above-given explanation, it is respectfully submitted that claims 1-14 are not obvious over the combination of the teachings of the cited references. It is, therefore, respectfully submitted that this rejection be withdrawn and that claims 1-14 be allowed.

The sole rejection having been addressed, it is respectfully submitted that the present application is

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condition for allowance and a Notice to that effect is earnestly solicited.

Should any matters remain in this application which might be resolved by interview, the Examiners is requested to telephone the undersigned at 570-386-5744.

Respectfully submitted,

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***APPENDIX***



CLAIMS AFTER AMENDMENT

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1. (Amended) A lamp for detecting fluorescent dyes that have been added to an air conditioning or refrigeration system, wherein the fluorescent dyes reemit light at a wavelength greater than the wavelength of light emitted from the lamp, the lamp comprising:

- a) a lamp housing;
- b) at least one light-emitting diode within the lamp housing; and
- c) means for providing power to the lamp, wherein the light emitted from the lamp is restricted to a predetermined range effective to enhance the reemission of light from the fluorescent dyes, and wherein the lamp operates with a current of less than one ampere.

2. The lamp of claim 1, wherein the diode is a blue light-emitting diode.

3. The lamp of claim 1, wherein the diode is a UV light-emitting diode.

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4. The lamp of claim 2, wherein the blue light-emitting diode is an indium gallium nitride semiconductor.

5. The lamp of claim 2, wherein the blue light-emitting diode is a laser diode.

6. The lamp of claim 5, wherein the laser diode is a gallium nitride based laser diode.

7. The lamp of claim 1, further comprising a protector ring connected to the lamp housing.

8. The lamp of claim 7, further comprising a lens positioned within the protector ring.

9. The lamp of claim 8, wherein the lens is a filter selected from the group consisting of black, red, amber, yellow, green, blue, indigo, violet, UV light and full spectrum filters.

10. The lamp of claim 9, further comprising a blocker glass.

11. The lamp of claim 9, wherein the lens is a dichroic filter.

12. The lamp of claim 1, further comprising a plurality of light-emitting diodes.

13. The lamp of claim 12, wherein each of the light-emitting diodes emits the same color light.

14. A method for detecting leaks in an air-conditioning or refrigeration system, comprising the steps of:

a) inserting a fluorescent dye into an air-conditioning or refrigeration system;

b) running the air-conditioning or refrigeration system; and

c) inspecting the air-conditioning or refrigeration system with the lamp of claim 1.